

Appl. No. 09/509,945

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-10. (Canceled).

11. (Previously Presented) A mutant barnase gene comprising one of the nucleotide sequences which encode the amino acid sequence of SEQ ID NO:2 except that the sequence of said mutant gene has an insertion of a T nucleotide and a deletion of an A nucleotide at the positions corresponding to 15-position and 333-position respectively, from the first nucleotide of the translation initiation codon.

12. (Previously Presented) A mutant barnase gene comprising the nucleotide sequence of SEQ ID NO:3.

13-14. (Canceled).

15. (Previously Presented) A mutant barnase gene comprising one of the nucleotide sequences which encode the amino acid sequence of SEQ ID NO:2 except that the sequence of said mutant gene has an

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insertion of a T nucleotide at the position corresponding to 15-position from the first nucleotide of the translation initiation codon.

16. (Previously Presented) A mutant barnase gene comprising the nucleotide sequence of SEQ ID NO:1 except that the sequence of said mutant gene has an insertion of a T nucleotide at the position corresponding to 15-position from the first nucleotide of the translation initiation codon of the nucleotide sequence of SEQ ID NO:1.

17-21. (Canceled).

22. (Currently Amended) The mutant barnase gene as claimed in any one of claims 11, 12, 15, or 16 ~~to 21~~, wherein a protein encoded by said mutant barnase gene is capable, when expressed anther specifically in a plant, of making said plant substantially male sterile without exerting any substantially disadvantageous effect on the tissues except for the anthers.

23. (Currently Amended) A DNA comprising a mutant barnase gene as set forth in any one of claims 11, 12, 15, or 16 ~~to 21~~ and a promoter located upstream of said gene for allowing an anther-specific expression of said gene, wherein said expression is

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capable of making a plant substantially male sterile when the DNA is introduced into the genome of said plant.

24-25. (Canceled).

26. (Previously Presented) A recombinant vector which contains a DNA as claimed in claim 23 and expresses said gene encoded by said DNA in a host plant.

27. (Previously Presented) A method of making a plant male sterile which comprises transforming said plant with a mutant barnase gene encoded by the DNA as claimed in claim 23, and allowing said mutant barnase gene to be expressed anther-specifically.

28. (Previously Presented) The method as claimed in claim 27, wherein said plant is transformed with a encoding said mutant barnase gene by integrating said into the genome of said plant.

29. (Previously Presented) A transgenic plant wherein a gene encoded by DNA as claimed in claim 23 has been introduced.